Air Conditioning, Heating and Ventilating 1965 Index to Feature Articles

Index is divided into two parts: first part lists feature technical articles and authors by month. Second part contains cross-references to feature articles arranged by month in first section. Bold-faced numbers are used for cross-referencing in this index and are not page numbers.

Data and detail sheets, reference sections and other feature departments are included in the monthly listing of technical articles.

To obtain photostatic copies of articles, write to Engineering Societies Library, 345 E. 47th Street, New York, N.Y. 10017, and request form.

January

1-1 Industrial Climate Control Versus Radiant Heat, A. T. Spangler, 77

1-2 Sizing Steam Control Valves, J. D. Constance, 88

1-3 Good Source for High Temperature Water, D. H. Roethenbach, 84

1-4 Calculating Heat Transfer in Underground Piping, H. D. Goodman, 86

1-5 Split System Supplies Sanitized Steam at Airport Restaurant, 90

1-6 Duct Connections for Various Pressure Classifications (Detail Sheet), 95

1-7 Turning Vanes for Square Type Elbows (Detail Sheet), 98

1-8 Does Hot Water Freeze Faster? M. A. Ramsey, 93

February

2-1 Motors and Starters, H. A. Wolfberg, M-1 to M-40

2-2 Cost Estimating for Building Service Systems-1, K. B. Edmunds, 93

2-3 Sizing Gas Risers, B. Janofsky, 95

2-4 District Heating and Cooling Plant Serves NASA's Nassau Bay Development, 97

2-5 NEMA Room Air Conditioner Cooling Load Form (Data Sheet), 111

2-6 Medium and High Pressure Apparatus Casings (Detail Sheet), 113

2-7 Details of a Typical Access Door, 114

March

3-1 Design for All Outside Air, A. E. Wheeler, 55

3-2 Cost Estimating for Building Service Systems-2, K. B. Edmunds, 59

3-3 Evaluating the Load for Industrial Climate Control, A. T. Spangler, 62

3-4 Can the Suction Tank be Removed? G. Jerus, 65

3-5 Indirect Waste—A Design Puzzle, A. Koral, 66

3-6 Coal Handling and Storage, D. H. Roethenbach, 68

3-7 Refrigerant Piping Guide, M. A. Ramsey, 71

3-8 Flow Rate per Ton of Refrigeration for Refrigerant-12 (Data Sheet), 87

3-9 Flow Rate per Ton of Refrigeration for Refrigerant-22 (Data Sheet), 88

3-10 Equalizing Vents for Systems Without Vent Stacks (Detail Sheet), H. E. Voegeli, 89

3-11 Design Considerations for Air Distribution Systems, H. H. Yousoufian, 93

3-12 Guidelines Lead to Good Design in Department Store Air Conditioning, 97

April

4-1 Flow of Materials in the Textile Industry, W. Quarles, 54

4-2 Textile Area Requirements for Air Conditioning, J. T. Ballew, 58

4-3 Air Conditioning Systems for Textile Mills, R. F. Ridgeway, 62

4-4 Controlling Conditions in Control Rooms, J. A. Fields, 67

4-5 Scale Models—New System Design Tool, D. A. Sankey, 71

4-6 Gas Turbines—A Progress Report, R. R. Adams, 76

4-7 Office Building Uses Multiple Air Conditioning Systems, G. C. Long, 79

4-8 Utilization of Superheated Street Steam (Detail Sheets), 85

4-9 Cost Estimating for Building Service Systems-3, K. B. Edmunds, 89

4-10 High Velocity Exhaust, Ventilation Noise and Filters, R. S. Brief, 91

4-11 Building Pressurization and Wind Effect, N. J. Janisse, 93

4-12 Applications and Installations: Air Conditioning Laboratories; Hospital Super-Clean Room, 94; Tunnel Ventilation; Humidity Control; Reusable Equipment at World's Fair, 95

May

5-1 Integrated Building Design, S. Daryanani, 65

5-2 Off-Peak Electric Hot Water Heating, B. S. Szabo, 71

5-3 Gas Engines Do Double Duty, J. W. Barrett, 75

5-4 How To Pass the PE EXAM, V. Chun, 79

5-5 Cost Estimating for Building Service Systems, K. B. Edmunds, 81

5-6 Control of Centrifugal Fan Noise in Industrial Applications, F. Oran, H. Seelbach and R. Hochheiser, 85

5-7 English-Spanish Plumbing Vocabulary (Data Sheets), A. Koral, 97

5-8 Tailor-Made Psych Charts, M. A. Ramsey, 102

5-9 Applications and Installations: Hospital Air Conditioning, All-Electric Office Building, 105; Gas Is Single Energy Source at Plant; Sprayable Adhesive for Duct Insulation; Water Chiller for Apartments, 106; Three-pipe System for Shopping Center; Air Dryer for Controls; Air Conditioner for Houston Domed Stadium, 107

June

6-1 Heat Recovery from Incinerators, O. S. Lieberg, 53

6-2 Office and Service Buildings, D. H. Roethenbach, 58

6-3 Cost Estimating Building Service Systems. Part 4, K. B. Edmunds, 61

6-4 Locating the Loci, M. A. Ramsey, 65

6-5 Equipment and Systems for Industrial Climate Control, A. T. Spangler, 67

6-6 Do Away with Solder Smears, H. E. Voegeli, 70

6-7 Control Valve Refresher: Specify the Right Valve, J. C. Cherico, 71

6-8 Rules for Design of Water Supply and Sewerage Systems in the Commonwealth of Puerto Rico, R. H. Toder, 75

6-9 Quick Fan Horsepower Estimate (Data Sheet), C. H. R. Hook, 85

6-10 Relation of Air Characteristics and Temperature (Data Sheet), 85

6-11 Snow Melting System (Detail Sheet), 87

6-12 Applications and Installations: Prefabricated Skin Carries Building's Air Conditioning and Heating, Hospital Consolidates Air Conditioning System for Reduced Service-Replacement Costs, 89; Oil-Fired Total Energy System Powers Toll Road Service Stations, 90; Chemical Treatment Protects Air Coolers from Corrosion; Off-Peak Power Heats Ontario Office, 91

July

7-1 Piping Under the Streets of Europe, R. M. E. Diamant, 53

7-2 Air Pollution from Stacks, R. S. Brief, 61

7-3 Environmental Contamination Discussed, 68

7-4 Cost Estimating Building Service Systems-5, K. B. Edmunds, 69

7-5 Fans and Freeze-ups, M. A. Ramsey, 71

7-6 Heat Recovery From Incinerators, O. S. Lieberg, 73

7-7 The Water Treatment Building, D. H. Roethenbach, 75

7-8 Simplified Stress Analysis for Piping Systems, C. A. Lee, 77

7-9 Sewage Lift Station Details (Detail Sheets), 85

7-10 Applications and Installations: Hydronic Heating and Cooling for Hospital; On-Site Duct Fabrication, 89; Gas Total Energy for Shopping Center; Dust Collectors Permit Recirculation at Woodworking Shop, 90; Cooling South African Gold Mine, 91

August

8-1 The Modern Shopping Center, R. J. Abramson, 59

8-2 Dual-Induction Proves Out On Montreal Lab, G. Morel, 63

8-3 Hot Water Heating Needs Water Treatment, S. Sussman, 68

8-4 Square Package in A Round Hole, M. A. Ramsey, 71

8-5 The Steam versus Hot Water Question, D. N. Crosthwait, 73

8-6 ASHRAE Conference Reports, 83

8-7 Reference Section-Simplified stress analysis for Piping Systems, C. A. Lee, 85

8-8 Measuring Air Velocity at Elevated Temperatures (Data Sheets), C. H. R. Hook, 91.

8-9 The New Plumbing Brass Specifications, 95

8-10 Estimating Machine Reduces Error in Preparing Cost Data, 110

8-11 Applications and Installations: Portland High-Rise Apartments Prove Out Multiple Small-Boiler Heating System, 101; Package Multi-Zone Rooftop Units Supply Budget Air Conditioning to Texas School, 102

September

9-1 Product Survey: Water Coolers and Fountains-Part 1, N. Martianoff, 59

9-2 Reference Section—Flow Balance in Hydronic Systems, G. F. Carlson, 71

9-3 Are Various High Velocity Branch Fittings Necessary? 98

9-4 Cool Process Room Can Be Dry and Mold Free, M. A. Ramsey, 99

9-5 Cost Estimating Building Service Systems-6, K. B. Edmunds, 101

9-6 Applications and Installations: Specifying the correct water chiller, W. Hugh Wilson, 105

October

10-1 Heat Pumps: Selection and Application: Classification of heat pump types, 56; Applied heat pump systems, 63; Equipment selection and feasibility considerations, 70; Controls for unitary heat pump systems, 74; Applications, 78; ARI—organization and certified ratings, 80; Heat pump equipment directory, 82

10-2 Product Survey: Water coolers and fountains—Part 2, N. Martianoff, 87

10-3 Cost Estimating Building Service Systems-7, K. B. Edmunds, 95

10-4 Specification and Design Seminar, M. A. Ramsey, 97

November

11-1 Clean Air Topics, S. Mouber, 8

11-2 Piping for Nuclear Process Systems: A look at the reactor, L2; Primary systems, L5; Auxiliary systems, L19; Auxiliary system equipment, L29; Radioactive waste, L31; About the Author, L32

11-3 Product Survey: Drinking Water Fountains—Part 3, N. Martianoff, 91

11-4 The Controversial 3-inch Drain, J. E. McGinness, Jr., 101

11-5 Applications and Installations: 57 tons cools 26,500 sq. ft. Atlanta Offices, 103; Gas Infra-Red Heating System for Tennis Courts, Vinyl Coating Solves Corrosion Problems at Textile Plants, 104; Heating-Cooling Units for Portland Apartments, 105

December

12-1 Water Conservation, Daryanani, Windman, et. al., 46

12-2 Integrated Building Design, Daryanani, Windman, et. al., 49

12-3 Master Planning, Daryanani, Windman, et. al., 61

12-4 Electric Heating, Daryanani, Windman, et. al., 64

12-5 Building Automation, Daryanani, Windman, et. al., 67

12-6 ASSE Committee Getting Realistic Water Consumption Data, 74

12-7 New Concept: Fan-Silencer Package, C. J. Trickler, 76

12-8 Air Sterilization Equipment, M. Meckler, 81

12-9 Cost Estimating Building Service Systems-8, K. B. Edmunds, 87

12-10 What Does The Owner Want? M. A. Ramsey, 89

12-11 Clean Air Topics, S. Mouber, 12

Subject and Author Index

Abramson, R. J., Abramson & Klipp, Chicago, 8-1
Access door details, 2-7
Adams, R. R., Chairman of the Board, J. E. Sirrine Co., 4-6
Air conditioning, 12-3
Air conditioning and heating system, 11-4
Air conditioning, department store, 3-12
Air conditioning domed stadium, 5-9
Air conditioning, hospital, 5-9
Air conditioning, office building, 4-7
Air conditioning textile areas, 4-2
Air distribution systems, 3-11
Air flow inside buildings, 4-11
Air operated pressure reducing station, 4-8
Air pollution control, 12-11
Air separation in hydronic systems, 9-2
Air velocity at elevated temperatures, 8-8
All outside air, design for, 3-1
Apparatus casings, medium and high pressure, 2-6
Automation, building, 12-5
Automatic control valves, 6-7
Auxiliary systems, 11-1
Balancing hydronic systems, 9-2
Ballew, J. T., Design Engineer, Heating and Ventilating, J. E. Sirrine Co., 4-2
Barrett, J. W., Guy B. Panero, Inc., New York, N.Y. 5-3
Branch fittings, high velocity, 9-3
Brief, R. S., Professional Engineer, Union, N.J., 7-2
Brief, R. S., Senior Industrial Hygienist, Esso Research and Engineering Co., 4-10
Building design, integrated, 5-1
Cv selection of valves, 9-2
Carlson, G. F., Director of Technical Services, Hydro-Flo Div., ITT Bell & Gossett Hydronics. 9-2
Casings, apparatus, 2-6
Ceilings, integrated, 5-1
Central air conditioning. 5-9
Central heating and cooling plant, 2-4
Centrifugal fan noise, control of, 5-6
Certified ratings—ARI, 10-1
Chemical feeders, 8-3
Chirico, J. C., Powers Regulator Co., New York, 6-7
Chun, V., Plant Staff Engineer, Hughes Aircraft Co., 5-4
Clean room air conditioning, 12-8
Clean room, hospital, 4-12
Climate control, industrial, 1-1
Combination compressor and generator, 5-3
Communications, 12-3
Connections, duct, low pressure, 1-6
Constance, J. D., Professional Engineer, Cliffside Park, N.J., 1-2
Control panel design, 12-5
Control room ventilation and air conditioning, 4-4
Control valve specification, 6-7
Cooking, steam supply for, 1-5
Cooling load form, room air conditioner, 2-5
Cooling water supply to desuperheater, 4-8
Crosthwait, D. N., P.E., Dunham-Bush Inc., 8-5
Daryanani, S., Syska & Hennessy, Inc., 5-1, 12-1, 12-2, 12-3, 12-4, 12-5
Deaerator, source for high temperature water, 1-3
Department store air conditioning, 3-12
Desuperheater. steam atomizing, 4-8
Diamant, R. M. E., Salford, England, 7-1
Diffusers, air distribution systems, 3-11
Directory, Heat Pumps, 10-1
Discharge lines, refrigerant piping. 3-7
District heating. 7-1
Drainage system. vented, 11-3
Drainage without vent stacks. 3-10
Draining oil separator, refrigerant piping, 3-7
Dual induction system, 8-2
Duct insulation, sprayable adhesive, 5-9
Edmunds, K. B., Senior Engineer, Jackson & Moreland Div. of United Engineers and Constructors. 2-2, 3-2, 4-9, 5-5, 6-3. 7-4, 9-5, 10-3, 12-9
Electric heating and cooling. 5-9
Electric hot water heating, 5-2
Electric power distribution, 12-3
Elevated temperatures, air velocity at, 8-8
Eliminating vent stack in plumbing systems, 3-10
Emergency electric power, 12-3
Engineering for shopping centers, 8-1
Engines, gas, for refrigeration, 5-3
Estimating, cost, 2-2, 3-2, 4-9, 5-5, 6-3, 7-4, 8-10, 9-5, 10-3, 12-9
Estimating machine, 8-10
Estimator, qualifications and duties, 3-2
Evans, J. E., Assistant Director of Engineering, ARI, 10-1
Excavation for trenches, 3-2
Executive Park office building, 11-4
Factory air conditioning, 6-5
Fan hp estimating, 6-9
Fan-Silencer unit, 12-7
Feasibility studies, heat pumps, 10-1
Fields, J. A., Design Engineer, J. E. Sirrine Co., 4-4
Filters, 4-10
Flow indicators, 9-2
Fountains, drinking water, 11-3
Fractional hp motors, 2-1
Freezing of pipe lines, 1-8
Gas risers, sizing, 2-3
Generators, combined with compressors, 5-3
Gerhart, C. M., Chief Product Engineer, York Div., Borg-Warner Corp., York, Pa. 10-1
Goodman, H. D., Consulting Engineer, New York, N.Y., 1-4
Harbour, D. J., Product Planning Manager, General Electric Co., 10-1
Heating, 12-3
Heating and air conditioning system, 11-4
Heating, electric, 12-4
Heating systems, municipal, 7-1
Heating systems, steam or hot water, 8-5
Heat pumps—selection and application, 10-1
Heat transfer, underground piping, 1-4
Hermetic motors, 2-1
High temperature water, 1-3
High velocity branch fittings, 9-3
High velocity exhaust systems, 4-10
Hochheiser, R., Industrial Acoustics Co., Inc., Bronx, N.Y., 5-6
Hook, C. H. R., Canadian Johns-Manville, Asbestos, Quebec, Canada, 6-9
Hospital air conditioning, 3-1, 5-9
Hospital air sterilization equipment, 12-8
Hot cells, nuclear, 11-1
Hot water generation, 7-6

Hot water heating, off-peak, 5-2
Hot water heating systems, 8-5
Houston Domed Stadium, 5-9
Hydronic systems, 9-2
Incinerators, Heat Recovery from, 6-1, 7-6
Industrial climate control, 3-3
Instrumentation, 11-1
Integrated building design, 12-2
Janisse, N. J., Chief Field Engineer, Johnson Service Co., 4-11
Janofsky, B., Project Engineer, Smith, Smith, Haines, Lundberg and Waehler, 2-3
Jerus, G. R., Senior Associate, Plumbing Design, Meyer, Strong & Jones, 3-4
Johns Hopkins Hospital, 3-1
Kassey, M. B., P. E., Chief HVAC Engineer, Sidney W. Barbanel, Long Island City, N.Y., 3-12
Koral, A., Plumbing Designer, New York, N.Y., 3-5, 5-7
Laboratory air conditioning, 4-12, 8-2
Laboratory air sterilization, 12-8
Lee, C. A., A. J. Boynton & Co., Chicago, 7-8, 8-7
Lieberg, O. S., Consulting Engineer, New York, 6-1, 7-6
Lift station, sewage, 7-9
Liquid lines, refrigerant piping, 3-7
Lish, K., Supervising Nuclear Engineer, Burns and Roe, Inc., New York, N.Y., 11-1
Lite-Therm, 11-4
Load estimating for industrial climate control, 3-3
Long, G. C., Design Supervisor, J. E. Sirrine Co., 4-7
Low pressure duct connections, 1-6
Martianoff, N., Air Conditioning, Heating and Ventilating, 9-1, 10-2, 11-3
Material flow, textile industry, 4-1
Meckler, M., P. E., Partner, Silver, Meckler and Associates, Consulting Engineers, Los Angeles, Calif., 12-8
Medium size (1-200 hp) motors, 2-1
Metering, water, 12-1
Montreal laboratory, dual induction system, 8-2
Morel, G., Pageau & Morel, Consulting Engineers, Montreal, Quebec, 8-2
Mouber, S., Community Relations Consultant, 11-1, 12-11
Multiple air conditioning systems, 4-1
Multiple condensers, refrigerant piping, 3-7
Municipal heating systems, 7-1
McCready, Manager, Refrigeration Research, Lennox Industries, Inc., 10-1
McGinniss, J. E., Jr., P. E., Consulting Engineer, Houston, Texas, 11-3
Nassau Bay district heating and cooling, 2-4
National Bureau of Standards Reactor, 11-1
Noise, centrifugal fan, control of, 5-6
Nuclear piping, 11-1
Oil return, refrigerant piping, 3-7
Oran, F., Seelbach, H., Hochheiser, R., Industrial Acoustics Co., Inc., New York, N.Y., 5-6
Outside air, design for, 3-1
Packaged air conditioner, 8-4
Part winding and reduced voltage starting, 2-1
Pipe line freezing, 1-8
Pipeline insulation, underground, 7-1
Piping circuitry, 9-2
Piping guide, refrigerant, 3-7
Piping system stress analysis, 7-8, 8-7
Pitot Tube measurements, 8-8
Plumbing brass specifications, 8-9
Plumbing drainage, 3-10
Plumbing terminology, English-Spanish, 5-7
Power plant design, 1-3, 3-6
Pressure reducing station, air operated, 4-8
Pressurization, building, 4-11
Professional engineer's exam, 5-4
Psychrometric charts, 5-8
Puerto Rican Plumbing Code, 6-8
Quarles, William, Textile Engineer, J. E. Sirrine Co., 4-1
Radiant ceiling panel system, 12-2
Radiant heat, effects on human body, 1-1
Radiation effects, nuclear, 11-1
Radioactive waste, 11-1
Radle, W. J., Project Engineer, Airtemp Div., Chrysler Corp., 10-1
Ramsey, M. A., Consulting Engineer, Worthington Corporation, 1-8, 3-7, 5-8, 6-4, 7-5, 8-4, 9-4, 10-4, 12-10
Reactor, nuclear, 11-1
Receivers, refrigerant piping, 3-7
Reed, F. J., Director of Engineering, ARI, 10-1
Refrigerant-12, flow rate, 3-8
Refrigerant-22, flow rate, 3-9
Refuse handling, 6-1
Ridgeway, R. F., Design Engineer, J. E. Sirrine Co., 4-3
Risers, gas, sizing for, 2-3
Room air conditioning cooling load form, 2-5
Roethenbach, D. H., HVAC Engineer, Ebasco Services Inc., 1-3
Salt water distillation, 7-6
Sanitized steam, cooking uses, 1-5
Sankey, D. A., Design Engineer, J. E. Sirrine Co., 4-5
Seelbach, H., Industrial Acoustics Co., Bronx, N.Y., 5-6
Service hot water, 7-6
Sewage, 12-3
Sewerage Systems, 6-8
Shielding of high temperature heat sources, 3-3
Shopping center, three pipe system, 5-9
Shopping centers, 8-1
Silencers, fan, 12-7
Sirrine Co., J. E., Engineers and Architects, Greenville, S.C., 4-1, 4-2, 4-3, 4-4, 4-5, 4-6, 4-7
Soil thermal conductivity, 1-4
Solder smears, elimination of, 6-6
Sound power levels, centrifugal fan, 5-6
Sovent, 3-10
Spangler, A. T., Senior Application Engineer, Carrier Air Conditioning Co., 1-1, 3-3
Spanish plumbing terminology, 5-7
Specification and design seminar, 1-8, 5-8, 6-4, 7-5, 9-4, 10-4, 12-10
Square elbows, turning vanes for, 1-7
Stack air pollution, 7-2
Stack vented drainage system, 3-inch, 11-3
Starters for motors, 2-1
Steam atomizing desuperheater, 4-8
Steam control valves, 1-2
Steam heating systems, 8-5
Storage Areas, coal handling, 3-6
Stratification, industrial buildings, 3-3
Street steam, superheated, 4-8
Stress analysis, piping system, 7-8, 8-7
Suction lines, refrigerant piping, 3-7
Suction tank removal, 3-4
Superheated street steam, 4-8
Sussman, S., Water Service Laboratories Inc., New York, 8-3
Sweat solder joints, 6-6
System design using scale models, 4-5
Szabo, B. S., Sales Engineer, Ontario Hydro, Toronto, 5-2
Terminal devices, 3-11
Terminal heat transfer units, 9-2
Textile industry, sequence of processes, 4-1
Textile plant air conditioning, 4-2, 4-3
Three-dimensional models for system design, 4-5
Three-inch drain, 11-3
Toder, R. H., Plumbing Designer, Fred S. Dubin Associates, 6-8, 7-9
Total energy systems, 5-9
Turbines, gas, source of power and heat, 4-6
Trickler, C. J., Technical Vice-President, The New York Blower Co., 12-7
Underground heating and cooling distribution system, 2-4
Underground piping, 7-1
Underground piping, heat transfer, 1-4
Unitary heat pumps, 10-1
Valves, control, specification, 6-7
Valves, steam control, 1-2
Ventilation, industrial, 4-10
Ventilation noise, 4-10
Ventilation, tunnel, 4-12
Voegeli, H. E., Cheshire, Conn., 3-10, 6-6
Waste heat recovery, 6-1, 7-6
Water Coolers, 9-1, 10-2
Waste, indirect, in plumbing systems, 3-5
Water chiller specification, 9-6
Water conservation, 12-1
Water consumption data, 12-6
Water coolers, 9-1, 10-2
Water supply, 12-3
Water supply systems, 6-8
Water treatment, 8-3
Wheeler, A. E., P.E., Chief Mechanical Engineer, Henry Adams, Inc., 3-1
Wilson, W. H., Manager Engineered Machinery Sales, York Corp., Dallas, Tex., 9-6
Wind effects, 4-11
Windman, A. L., Partner and Secretary, Syska & Hennessy, Inc., 12-1, 12-2, 12-3, 12-4, 12-5
Wolfberg, H. A., Chief Mechanical Engineer, Victor Gruen Associates, 2-1
Yousoufian, H. H., Manager, Air Conditioning Engineering Services, Worthington Corp., 3-11
Zone pumping, 9-2